

The Remaining Eye

Red Florescent Adhesive Paper for IR Beams Available

A few laser users have come back from SLAC with stories of a magically red florescent adhesive paper that shows IR beam locations. Well if SLAC has it we can go one better. Not only can you get it now here at LBNL, but it is FREE.

New Laser Standard

User guidance and DOE laser safety programs; all follow an American National Standards Institute laser safety series, Z136. I am happy to announce the pending publication of a new addition to that standard series, Z136.8 Laser Safety in the Research, Development and Testing Environment. Our own LBNL LSO is chair of that committee, 4 years of committee work is about to come to fruition. This new standard will enhance laser safety in the R&D setting and remove several procedural difficulties the existing Z136.1 standard for Safe Use of Lasers presents in our setting and DOE compliance.



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Can you guess the lab this cover photo is from? There's a prize if you can.

British Laser Gun



Police forces across the UK may soon be equipped with laser guns for use against rioters during any future social unrest. The weapon can fire a laser at a distance of up to 500 meters, briefly blinding anyone caught in its path. The SMU 100 laser weapon, which was originally designed for use against Somalian pirates, costs £25,000 (\$40,000) and is capable of shooting a three-meter wide "wall of light" over a distance of up to 500 meters, causing anyone facing it to briefly lose their sight. "The system would give police an intimidating visual deterrent," said Paul Kerr, managing director of Scottish-based Photonic Security Systems, which makes the weapon. "If you can't look at something you can't attack it." The SMU 100 is set to be trialed by a British police unit, though precisely which one is not being disclosed. Following the trial, as well as further tests to examine whether there are any long-term health risks, the government will decide if the weapon will be adopted by police forces across the nation. Water cannons have been looked at, but are thought to be too big and cumbersome for many of the country's narrow city streets. Furthermore, slow-moving water cannons are better suited to dealing with large crowds rather than going after smaller groups dotted about a city, which was the situation with August's 2011 unrest. British cops also have Tasers and CS gas at their disposal, though their limited range renders them useless in many situations. December 12, 2011 By [Trevor Moqq](#).

Follow Up on INL Accident

An SMC technician received 2nd degree burns to the middle and ring fingers of his left hand while performing a preventive maintenance (PM) procedure on a Class 4 industrial laser August 30, 2011. The task required placement of a “target” in the beam path to verify mirror alignment. The technician, believing the laser was in a safe mode, reached into the beam pathway to place the target, saw a flash and immediately withdrew his hand. The direct cause of this event was the misunderstanding regarding the beam functions while in the program screen “Mirror Alignment.” As in most events, it’s not just one barrier that fails, it’s several. The technicians had received the training and had enough experience to perform the task safely, but did not follow some key safe work practices such as turning off HV, and checking the beam path with paper prior to placing the target. The work order lacked critical instructions regarding the task and did not reference the specific Rofin procedure for this task; as a result the technicians performed the task from memory. The hazard assessment relied on the training and experience of the technicians and did not follow-up to verify the effectiveness and implementation of controls. Anyone who might like the 29 page report with color photos, just email, Ken Barat at kbarat@lbl.gov.

Introducing Justine Woo

I am happy to announce that Justine Woo, will be working with the laser safety program from now through mid-May. Justine is a recent college graduate who is taking a break before grad school to work here at LBNL. She will be working on a number of projects that focus on enhancing our laser safety program and your safety. Please do your best to cooperate and make time for her.



Temporary Work Authorization Change

The LBNL laser user community has got a great deal of use out of TWA's, that will continue, but some new changes have been added to the procedure. Division Safety Coordinators (DSC) will receive an email informing them that a TWA is going to be issued and a copy of the controls, one control should be a physical barrier and validated when possible. The TWA must be posted in the work area for the duration of the TWA. Biggest change is now the TWA will require a DSC signature.

Help Us Come Up with a Newsletter Name!

If you have a great name idea, please send them to kbarat@lbl.gov

Science Humor

- Two atoms were walking across a road when one of them said, "I think I lost an electron!" "Really!" the other replied, "Are you sure?" "Yes, I 'm absolutely positive."
- Q: How many theoretical physicists specializing in general relativity does it take to change a light bulb?
A: Two. One to hold the bulb and one to rotate the universe.
- Allegedly at the "Manhattan Project" where the first nuclear reactor was built, security was very tight and the workers were told not to tell their families what they were doing. During a security check the families were asked if they knew what their working parent did at work. One young lad replied that his father worked in a place that made light bulbs and toilet paper. When asked how he knew, he replied that his father brought a roll of toilet paper and a light bulb home every day in his lunch box.
- When a certain nuclear physicist went on holidays he hung a sign on his laboratory door which read: "Gone Nuclear Fission."